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DAVIS, MARY ALICE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

ED

Office Action Summary	Application No.	Applicant(s)	
	10/548,406	SHARUDENKO ET AL.	
	Examiner	Art Unit	
	Mary A. Davis	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8, 18, and 27-30* is/are rejected.

7)☒ Claim(s) *1-7,9-17 and 19-26* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 September 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/8/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the two pairs of annular elements connected in pairs (claim 1), the driving member during rotation is in contact with the rotor covers (claim 1), the pairs of annular elements are designed to move over inner annular guides of the segmental rotor parts (claim 2) (with no side view showing both the annular elements (7) and the segmental rotor parts (8), it is not understood what the structural relationship is between these parts to allow one to "move over" the other), the pairs of annular elements engaging with the annular guides of the segmental rotor parts (claim 3), the annular guides of one another (claim 4), the pairs of annular elements embrace one another on two sides (claim 5), the pairs of annular elements are adapted to move in annular guides of the rotor covers (claims 6 and 17), the annular guides of the segmental rotor parts and rotor covers and the end-face surfaces of the housing are provided with rolling-contact bearings (claim 7 and 19), the inner cylindrical surface of the smaller-diameter housing part is rippled (claims 8 and 18), the annular elements have reinforcing and cooling plates and the housing is provided with coolant passages (claim 12), at least two pairs of elements interconnected in pairs (claim 16), annular guide of the other pair (claim 16, line 6), the annular and segmental elements have reinforcing and cooling plates and the housing has coolant passages (claim 23), outlet ports in the shape of nozzles (claim 29), and each of the

combustion chambers has double walls (claim 30) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "3" and "7" have both been used to designate annular elements (see Page 5, ¶5 which describes 3 as the annular element).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "13" and "8" have both been used to designate the same structural element in Figure 1.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "8" and "5" have both been used to designate the working chamber (see Figure 7).

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "7" and "8" have both been used to designate the part that appears to be the segmental element (8) (see Figure 14).

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "A-A'" has been used to designate both a line along the center of the driving shaft and a line thru O* (see Figures 2, 3, 4, 15, 16, 17, 21, 22, 23, and 24 which show two different lines A-A').

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 7b (Page 6, ¶4), 17 (Page 6, ¶10), 3* and 3** (Page 15, ¶1).

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "3", "4", "5", or "6" and "2" have been used to designate chambers (see Page 8, ¶2).

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "17" has been used to designate both working fluid in chamber 17 (or twin chamber) and working fluid filled chamber 17 of driving member 1 (see Page 9, ¶8).

10. The drawings are objected to under 37 CFR 1.83(a) because they fail to show reinforcing (cooling) plates of annular element 7 as described in the specification (Page 5, ¶1). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

11. The drawings are objected to because:

- Section line 1-1 is shown in Figures 1, 2, 4, 5, 6, and 7. Which figure(s) is section 1-1 taken thru? It is obvious that the section cannot be taken at the same place thru all of these figures since they are at different rotational positions of the driving member.
- Section line 2-2 is shown in Figures 1, 5, and 6. Which figure(s) is section 2-2 taken thru?
- Figure 10 and Figure 11 are labeled as 3-3 with Russian designation after it. Please use the English equivalent next to 3-3. Where is the section 3-3 being taken at for Figures 10 and 11?

- Sections 6-6, 5-5, and 3-3 are shown in Figure 8 to be at the same location and at the same sectioning plane. It is not understood how the same sectioning plane can show different structural sections.
- MPEP § 608.02 (page 600-113 and 600-114 of Rev 5 of the MPEP) discloses the shading conventions to use in drawings. Currently the annular elements (7), according to the shading convention are transparent. Please utilize this shading convention.
- MPEP § 608.02 (page 600-107 of Rev 5), states that "the plane upon which a sectional view is taken should be indicated on the view from which the section is cut by a broken line". Sections 2-2, 3-3, 4-4, 5-5, and 6-6 do not have a broken line showing where the section is taken thru. Not having the sectional plane shown, the sections do not make sense. For example, section 4-4 taken in Figure 9 does not show item 9 in the sectional view of Figure 5.
- The interrelationship of segment 8 and annular elements (7) are never shown in cross section. Figures 8-11 are the only cross sections taken, however, these figures do not show how segment (8) and annular elements (7) interact with each other.
- In Figure 9 showing section 2-2, where are annular elements (7)? Annular elements (7) should be shown in Figure 9 per the specification (Page 6, ¶10).

- The figures and the specification recites that the annular elements (7) have reinforcing plates. In Figure 9, the reinforcing plates (16) are shown to attach to the segmental elements (8). Are the reinforcing plates (16) suppose to be attached to the annular elements (7) or the segmental elements (8)? (See Figure 9 and specification Page 6, ¶10)
- "Line 13 of possible configuration of compression chambers 5 and 6 (in the plane of Fig. 1)" (Page 5, ¶1) or smaller chamber (Page 9, ¶9) is not understood. What is item 13? Where is item 13 in the cross-section of Figure 9?
- Figures 14-17 appear to show the rotation of the second embodiment. The driving member (1) appears to be rotating clockwise. How can the annular element (7) adjacent to chamber (4) rotate out of the guide with the driving member rotating in a clockwise manner?

Appropriate correction is required.

12. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

13. The abstract of the disclosure is objected to because the abstract is too long.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

14. The disclosure is objected to because of the following informalities:

- The specification does not disclose how the strips (9) are related to 7.
- The specification discloses a nozzle (18), however, Figures 10 and 11 do not show a nozzle at (18). A nozzle is defined as a projecting part with an

opening. Item 18 in Figures 10 and 11 does not project from the surface. It is recommended to change the verbiage when describing item 18.

- What is meant by "super atmospheric pressure" (Page 7, ¶8)?
- End-face covers 14 and 15 (Page 9, ¶9) are two different structural components. Different descriptions should be used to distinguish between them since the end-face cover (14) is attached to the rotor segment (8) while the inner end-face of the housing (15) interfaces with 14 and is attached to the housing (12,11) (see Figure 9).

Appropriate correction is required.

15. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

16. The following claims are objected to because of the following informalities:

- Claim 1 recites the limitation "cylindrical surfaces of the housing" (Page 3, line 11). The cylindrical surfaces of the housing are disclosed earlier in claim 1 (lines 2-4). The Examiner recommends that - - said - - is inserted before "cylindrical surfaces of the housing".
- Claim 7, line 2, there should be - -the - - or - -said - - before rotor covers since the rotor covers is disclosed earlier in the independent claim.

- Claims 10-22 and 24-26, line 1, "rotar y" should be - - rotary - - (for correcting typographical errors).
- Claims 27-29, line 1, "membe r" should be - - member - - (for correcting typographical errors.)

Appropriate correction is required.

Claim Rejections - 35 USC § 112

17. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claims 8 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 8 and 18 recite a limitation of: "the inner cylindrical surface of the smaller-diameter housing part is rippled to increase resistance to the flow of escaping gases". The rippling of the housing is not shown nor described in the specification to understand what is meant by creating a "rippled" surface. How large is the rippling surface (are the ripples in the order of microns or millimeters)? Does the rippling occur over the entire area of the smaller diameter cylinder, or just a portion of it? Do the ripples have a specific orientation? How does the ripple increase the resistance to flow of escaping gases? Furthermore, the ripple may in fact cause the flow of escaping gases to increase since it could provide a pathway for the gas.

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

21. Claim 1 recites the limitation "the openings of the pivotal elements" in Page 3, line 8, "the inner working surfaces of the segmental rotor parts" in Page 3, line 10, and "the inner end-face" in Page 3, line 11. There is insufficient antecedent basis for this limitation in the claim. Claims 2-15 are rejected by virtue of their dependence on claim 1.

Claim 1 recites the limitation "its working surface" (Page 3, line 9). What is "its" referring to? Claims 2-15 are rejected by virtue of their dependence on claim 1.

22. Claim 3 recites the limitation of "the pairs of annular elements embrace the segmental rotor parts and are in contact with the inner cylindrical surface of the smaller-diameter housing part for movement in, and engagement with, the annular guides of the segmental rotor parts." How can the annular elements embrace the segmental rotor parts and be in contact with the inner cylindrical surface of the housing while moving and engaging with the annular guides of the segmental rotor parts? When the annular elements are embracing the segmental rotor parts, as shown in Figure 12, the segmental rotor parts appear to engage the annular guides of the annular elements. Figure 12 does not show the annular elements engaging the annular guides of the

segmental rotor parts, which is claimed. Claims 5 and 6 are rejected by virtue of their dependence on claim 3.

23. Claim 4 recites the limitation "the annular guides of one another". It is not clear what the guides of "one another" are referring to. Claims 5 and 6 are rejected by virtue of their dependence on claim 3.

24. Claim 5 recites the limitation: "the pairs of annular elements embrace one another on two sides during movement relative to one another". From the drawings, one of the annular elements embraces the other annular element on two sides, while the other annular element is being embraced. The annular elements do not show that they are both embracing "one another", since one annular element slides within the other annular element, and thus, is embraced. If they were embracing one another, both of the annular elements would have overlapping interlocks.

25. Claim 10 recites "the end-face parts of the pivotal elements". What is meant by the word "parts"? Is it the end-face of the pivotal elements, or is there a "part" attached to the end-face of the pivotal element? The Examiner recommends removing the word "parts" from the description of the pivotal elements.

26. Claim 16 recites the limitation: "to move in the annular guides of the other pair". What annular guide is the applicant referring to? Is the annular guide of the other pair of elements consisting of a segmental element and an annular element located on the opposite side of the driving member? It is not shown nor disclosed that the one pair moves in the annular guide of the other pair located at the opposite side of the driving member. Claims 17-26 are rejected by virtue of their dependence on claim 16.

Claim 16 recites the limitation "the openings of the pivotal elements" in line 9. There is insufficient antecedent basis for this limitation in the claim. Claims 17-26 are rejected by virtue of their dependence on claim 16.

Claim 16 recites the limitation: "its working surfaces". What working surface is "its" referred to? Claims 17-26 are rejected by virtue of their dependence on claim 16.

27. Claims 27-29 recites as part of the limitation "it" in claim 27, Page 8, line 6, claim 28, Page 8, line 1 and claim 29, Page 8, line 1. What is "it" referring to? Claim 30 is rejected by virtue of their dependence on claim 27.

28. Claim 27 recites the limitation: "wherein each part". This is indefinite since it is not clear on which "part" the applicant is trying to limit.

Claim 27 recites the limitation "the axis of rotation" in line 2, "the rotor" in line 2, "the working surfaces" in line 2, the inner cylindrical surface of the housing" in line 3, "the combustion products" in line 6, and "the main working chamber" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitations of "the working surfaces" (line 2). What working surfaces is the applicant referring to?

Claim 27 recites the limitations of "the working chamber". Which working chamber is the applicant trying to limit (the combustion working chamber or the other chamber)? Furthermore, the use of "the other chamber" is vague. What does "the other chamber refer to? The Examiner recommends utilizing - - the first working chamber, the second working chamber - -.

Regarding claim 27, the phrase "can be" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention.

29. Claim 28 recites the limitation "it has passages and valves provided therein for transferring the working fluid to the working chambers following compression thereof". Figures 10 and 11 show passages and valves for chamber 3, however, the passages and valves that interact with chamber 4 are not shown. Are the passages and valves going to and from chamber 4 in the driving member the same as chamber 3 except they are a mirror image? How do figures 10 and 11 relate along the axis of the driving member?

30. Claim 29 recites the limitation of "in the shape of nozzles". It is unclear what shape is meant by: "a nozzle". Is outlet ports cone shaped or cylindrical? Furthermore, a nozzle is defined as a projecting part with an opening. The figures do not show a projection from the driving member.

Claim Rejections - 35 USC § 102

31. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

32. Claims 27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by ZOLLENKOPF (U.S. Patent 4,023,540).

Regarding claim 27, ZOLLENKOPF discloses:

- A driving member (37) of a rotary machine, comprising a casing (37), wherein each part thereof between the axis of rotation of the rotor and each of the working surfaces designed to be in contact with the inner cylindrical surface of the housing (23, 49, 51) is provided with communicating inner chambers (C, P) (see Figure 2), one of which is a combustion working chamber (P) and the other chamber is designed to be filled with a working fluid (C) for subsequently purging the working chamber so that a fuel mixture can be injected into it (Column 4, lines 42-58, and Column 6, lines 17-26) and the combustion products are discharged into the main working chamber of the rotary machine (see Figure 1, it is inherent that the combustion products are discharged into main working chamber and exit at the exhaust port (71), and Column 6, lines 27-36).

Regarding claim 29, ZOLLENKOPF discloses:

- it is provided with outlet ports (71, 75) in the shape of nozzles (see Figures 1 and 2).

Claim Rejections - 35 USC § 103

33. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

34. Claims 28 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WEEKS (U.S. Patent 830,124).

Regarding claim 27, WEEKS discloses:

- A driving member (22) of a rotary machine, comprising a casing (22), wherein each part thereof between the axis of rotation of the rotor and each of the working surfaces designed to be in contact with the inner cylindrical surface of the housing (4 which consists of 5 and 6) is provided with communicating inner chambers (38, 39), one of which is a combustion working chamber (Page 3, lines 44- 81) and the other chamber is designed to be filled with a working fluid (Page 3, lines 44-81).

Regarding claim 28, WEEKS discloses:

- passages (40, 41, 42) and valves (35) provided therein for transferring the working fluid to the working chambers (Page 3, lines 44- 81).

WEEKS discloses utilizing expansible fluid medium to drive the rotary motor, however fails to disclose a fuel mixture being injected into the working chamber forming combustion.

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have included fuel injectors and combustion in the rotary engine of WEEKS, in order to generate greater output from the engine.

35. Claim 30 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over ZOLLENKOPF.

ZOLLENKOPF discloses the claimed invention, including "suitable means can be provided for providing lubricating oil to the contacting moving surfaces in the engine not only to lubricate, but also to cool the parts, although the walls of the engine can also, if desired be provided with cooling passages and/or water jackets" (Column 6, lines 11-16).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have provided the combustion chamber with a double wall in ZOLLENKOPF, in order to provide cooling passages for the engine.

Allowable Subject Matter

36. Claims 1-7, 9-17, and 19-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Prior Art

37. The IDS (PTO-1449) filled on 8 September 2005 has been considered. An initialized copy is attached hereto.

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 12 patents and patent publications:

- EGERSDORFER (U.S. Patent Number 802,920) and MARTIN (U.S. Patent 5.421,706) disclose the interior housing being generated by two different cylindrical diameters.
- CLARK (U.S. Patent Number 1,155,794) discloses a valve in the driving member.

- BERNTSEN (U.S. Patent Number 1,636,799), CAMPBELL (U.S. Patent Number 1,703,294), and LANZEROTTI-SPINA (U.S. Patent Number 1,848,754) disclose a rotary engine with segmented rotor and annular elements.
- RYDBERG ET AL (U.S. Patent Number 2,966,898) discloses a rotary piston engine with a valve in the vane.
- BALSBAUGH (U.S. Patent Number 3,886,909) discloses a multi-plate driving member where the angles between the lobes are equal and the rotor that is contacted by the driving member has a flat, two-sided surface.
- MATSUDA ET AL (U.S. Patent Number 5,399,076) discloses a rotary piston compressor with an inner and outer working volume.
- ZHAI (Chinese Publication Number CN1715617 A) discloses the axis of the driving member is different than the axis of the rotor.
- FONTANA (Switzerland Publication Number CH622059-A5) and VALENTINOVICH (U.S. Patent 6,481,988 B2) discloses internal passages in the driving member.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary A. Davis whose telephone number is (571) 272-9965. The examiner can normally be reached on Monday thru Friday; (Second Friday off) 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAD

5/7/07

Mary A. Davis

Patent Examiner

Art Unit: 3748

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